

# 2020–2023 Transportation Improvement Program (TIP) Adams County Subregional Share Project Application Form

## APPLICATION OVERVIEW

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The **Subregional Share Call for Projects** will **open on January 2, 2019**, with applications **due no later than 3 p.m. on February 27, 2018** to [your subregional forum](#).

- To be eligible to submit, at least one person from your agency must have attended one of the mandatory TIP training workshops (held August 8 and August 16) or a supplemental training held on September 14.
- Projects requiring CDOT and/or RTD concurrence must provide their official response with the application submittal. The CDOT/RTD concurrence request is due to CDOT/RTD no later than January 7, with CDOT/RTD providing a response no later than February 8. The form can be found [here](#).
- Any applications submitted by regional or similar agencies (TMA's), or municipalities crossing multiple subregions, must be submitted through the subregional forum based on where the majority of the project is located.
- Data to help the sponsor fill out the application, *especially Part 4*, can be found [here](#).
- If any sponsor wishes to request additional data or calculations from DRCOG staff, please submit your request to [tcottrell@drcog.org](mailto:tcottrell@drcog.org) no later than February 6, 2019.
- The application must be affirmed by either the applicant's City or County Manager or Chief Elected Official (Mayor or County Commission Chair) for local governments, or agency director or equivalent for other applicants.
- Further details on project eligibility, evaluation criteria, and the selection process are defined in the ***Policy on Transportation Improvement Program (TIP) Preparation: Procedures for Preparing the 2020-2023 TIP***, which can be found online [here](#).

## APPLICATION FORM OUTLINE

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The 2020-2023 TIP Subregional Share application contains three parts: *base project information* (Part 1), *evaluation questions* (Part 2), additional considerations (Part 3), and *data calculation estimates* (Part 4). DRCOG staff will review each forum's submitted applications for eligibility. Each forum will be responsible for making a comprehensive evaluation of all eligible applications and rank ordering their submittals to determine their recommended projects and waiting lists. Forum recommendations will be forwarded to DRCOG staff for a final recommendation to the TAC, RTC, and DRCOG Board.

### Part 1 | Base Information

Applicants will enter **foundational** information for their *project/program/study* (hereafter referred to as *project*) in Part 1, including a Problem Statement, project description, and concurrence documentation from CDOT and/or RTD, if applicable. Part 1 will not be scored.

## Part 2 | Evaluation Criteria, Questions, and Scoring

This part includes four sections (A-D) for the **applicant to provide qualitative and quantitative responses** to use for scoring projects. The outcomes from Part 3 should guide the applicant's responses in Part 2.

**Scoring Methodology:** Each section will be scored using a scale of *High-Medium-Low*, relative to other applications received. The four sections in Part 2 are weighted and scored as follows:

### Section A. Subregional Significance of Proposed Projects ..... 40%

<b>High</b>	The project will significantly address a clearly demonstrated major subregional problem and benefit people and businesses from multiple subregions.
<b>Medium</b>	The project will either moderately address a major problem or significantly address a moderate-level subregional problem.
<b>Low</b>	The project will address a minor subregional problem.

### Section B. Metro Vision TIP Focus Areas ..... 30%

<b>High</b>	The project will <b>significantly improve</b> the safety and/or security, <b>significantly increase</b> the reliability of the transportation network, and benefit a <b>large number and variety</b> of users (including vulnerable populations*).
<b>Medium</b>	The project will <b>moderately improve</b> the safety and/or security, <b>moderately increase</b> the reliability of the transportation network, and benefit a <b>moderate number and variety</b> of users (including vulnerable populations*).
<b>Low</b>	The project will <b>minimally improve</b> the safety and/or security, <b>minimally increase</b> the reliability of the transportation network, and benefit a <b>limited number and variety</b> of users (including vulnerable populations*).

*\*Vulnerable populations include: Individuals with disabilities, persons over age 65, and low-income, minority, or linguistically-challenged persons.*

### Section C. Consistency & Contributions to Transportation-focused Metro Vision Objectives ..... 20%

Metro Vision guides DRCOG's work and establishes shared expectations with our region's many and various planning partners. The plan outlines broad outcomes, objectives, and initiatives established by the DRCOG Board to make life better for the region's residents. The degree to which the outcomes, objectives, and initiatives identified in Metro Vision apply in individual communities will vary. Metro Vision has historically informed other DRCOG planning processes, such as the TIP.

<b>High</b>	The project will <b>significantly</b> address Metro Vision transportation-related objectives and is determined to be in the <b>top third</b> of applications based on the magnitude of benefits.
<b>Medium</b>	The project will <b>moderately</b> address Metro Vision transportation-related objectives and is determined to be in the <b>middle third</b> of applications based on the magnitude of benefits.
<b>Low</b>	The project will <b>slightly or not at all</b> address Metro Vision transportation-related objectives and is determined to be in the <b>bottom third</b> of applications based on the magnitude of benefits.

### Section D. Leveraging of non-Subregional Share funds ("overmatch") ..... 10%

Scores are assigned based on the percent of outside funding sources (non-Subregional Share).

% of Outside Funding (non-Subregional Share)	<b>High</b>	60% and above
	<b>Medium</b>	30-59%
	<b>Low</b>	29% and below

### **Part 3 | Additional Considerations**

The Forum has established five additional considerations to guide project selection within the subregional process. These considerations may be used by the ADCOG Subregional Forum in the project evaluation process in combination with the above listed criteria.

### **Part 4 | Project Data – Calculations and Estimates**

Based on the applicant's project elements, sponsors will complete the appropriate sections to estimate usage or benefit values. Part 4 is not scored, and the quantitative responses should be used to back-up the applicant's qualitative narrative.

## Part 1

## Base Information

1. Project Title	120 <sup>th</sup> Avenue Improvements	
2. Project <i>Start/End</i> points or Geographic Area <i>Provide a map with submittal, as appropriate</i>	Washington Street to approximately 150' east of the railroad tracks (near the Old York Street connection)	
3. Project Sponsor ( <i>entity that will construct/ complete and be financially responsible for the project</i> )	City of Northglenn, with limited financial support from City of Thornton	
4. Project Contact Person, Title, Phone Number, and Email	Brook Svoboda, Planning and Development Director, 303-450-8937, <a href="mailto:bsvoboda@northglenn.org">bsvoboda@northglenn.org</a>	
5. Does this project touch CDOT Right-of-Way, involve a CDOT roadway, access RTD property, or request RTD involvement to operate service?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes, provide applicable concurrence documentation with submittal</i>	
6. What planning document(s) identifies this project?	<input type="checkbox"/> <a href="#">DRCOG 2040 Fiscally Constrained Regional Transportation Plan (2040 FC RTP)</a>	
	<input checked="" type="checkbox"/> Local plan:	<p>120<sup>th</sup> Avenue Corridor Study: Washington Street to Claude Court, City of Northglenn, August 2015.            Link: <a href="https://www.northglenn.org/Departments/Planning%20&amp;%20Development/Planning/Karls%20Farm/Appendix%20C%20-%20Final%20%20120th%20Report%208-18-15.pdf">https://www.northglenn.org/Departments/Planning%20&amp;%20Development/Planning/Karls%20Farm/Appendix%20C%20-%20Final%20%20120th%20Report%208-18-15.pdf</a>.</p> <p>Connect Northglenn Bicycle and Pedestrian Master Plan, City of Northglenn, January 2015.            Link: <a href="https://www.northglenn.org/Departments/Planning%20&amp;%20Development/Planning/Connect%20Northglenn/Connect%20Northglenn%20Final.pdf">https://www.northglenn.org/Departments/Planning%20&amp;%20Development/Planning/Connect%20Northglenn/Connect%20Northglenn%20Final.pdf</a>, pages: 2-7 and 5-14.</p> <p>Karl's Farm Dairy Master Plan, City of Northglenn.            Link: <a href="https://www.northglenn.org/Government/Projects/Karls%20Farm%20Dairy/karls_farm_master_plan_final_no_app.pdf">https://www.northglenn.org/Government/Projects/Karls%20Farm%20Dairy/karls_farm_master_plan_final_no_app.pdf</a>, pages: 18-25.</p> <p>Transportation Master Plan, City of Thornton, September 2009.            Link: <a href="https://www.cityofthornton.net/government/citydevelopment/planning/Pages/transportation-plan.aspx">https://www.cityofthornton.net/government/citydevelopment/planning/Pages/transportation-plan.aspx</a>, Chapter 5 and Appendix B.</p>
	<input type="checkbox"/> Other(s):	
<i>Provide link to document/s and referenced page number if possible, or provide documentation with submittal</i>		
7. Identify the project's <b>key elements</b> .		

- ☐ Rapid Transit Capacity (2040 FC RTP)
- ☐ Transit Other:
- ☒ Bicycle Facility
- ☒ Pedestrian Facility
- ☒ Safety Improvements
- ☒ Roadway Capacity or Managed Lanes (2040 FC RTP)
- ☒ Roadway Operational

#### Grade Separation

- ☐ Roadway
- ☐ Railway
- ☐ Bicycle
- ☐ Pedestrian
- ☐ Roadway Pavement Reconstruction/Rehab
- ☐ Bridge Replace/Reconstruct/Rehab
- ☐ Study
- ☒ Design
- ☐ Transportation Technology Components
- ☐ Other:

#### 8. **Problem Statement** What specific Metro Vision-related subregional problem/issue will the transportation project address?

Four major problems occur in this corridor. All relate to the existing high level of congestion due to the through travel lanes being reduced from three to two in both directions on this stretch of 120<sup>th</sup> Avenue. The high level of congestion impacts 1) efficient movement of traffic, causing significant traffic delay, 2) local air quality, 3) safety for all users, and 4) the opportunity to implement high frequency transit.

Two sources indicate that this stretch of 120<sup>th</sup> is highly congested both today and into the future:

- 1) *Metro Vision Regional Transportation Plan (MV RTP)* identified this section of 120<sup>th</sup> as a congested corridor in 2016.
- 2) *120<sup>th</sup> Avenue Corridor Study*, City of Northglenn, 2015, indicates that three of the four intersections in this stretch of the 120<sup>th</sup> Avenue corridor will operate at a Level of Service (LOS) F in 2034 and that the remaining intersection will operate at LOS E if no action is taken. This trip generation analysis assumes full buildout of the RTD Eastlake and 124th Transit Station Park-n-Ride (PNR), northeast of this site, and development of 220 acres along the north side of 120<sup>th</sup> Avenue.

High levels of congestion create significant travel delay in this stretch of 120<sup>th</sup> Avenue; daily peak hour delay (AM and PM combined) totals 32.5 minutes for east and westbound travel. This delay contributes to greenhouse gas (GHG) emissions in the area. With the planned project improvements, all intersections are expected to operate at LOS C or better during peak hours through 2040, with a reduced delay of 51%.

There are also safety concerns along the corridor. Two of the four intersections in this stretch were in the top ten most frequent accident locations in the City in 2018: E 120<sup>th</sup> Avenue/Washington Street and E 120<sup>th</sup> Avenue/Claude Court. Between 2011 and 2015 nearly 140 accidents occurred on this part of 120<sup>th</sup> Avenue, 7 of which involved severe injuries. Additionally, 7 incidents between 2012 and 2016 involved bicycles and pedestrians along this stretch.

DRCOG's 2040 Rapid Transit Network and the Northwest Area Mobility Study (NAMS) recommend rapid transit service along 120<sup>th</sup> Avenue between Broomfield and Brighton. This highly congested corridor segment would have a significant impact on the ability to implement high frequency transit service along 120<sup>th</sup> because this stretch acts as a major bottleneck for buses. Taken from NAMS, the table that follows describes the 120<sup>th</sup> Avenue BRT key elements.

**Table 6.3 120th Avenue BRT Key Characteristics**

Key Statistics	Description
Starts/Ends:	Wadsworth area to ADCOGC
Length:	<ul style="list-style-type: none"> <li>16.3 miles</li> </ul>
Travel Time (Start to End):	41 minutes from Broomfield PnR to ADCOGC
Number of Stations:	18
Projected 2035 Boardings	5,000 (all services – Arterial BRT and local)
Estimated Capital Cost:	\$ 31,800,000
Key Characteristics:	<ul style="list-style-type: none"> <li>Provides east-west connection from Broomfield to I-25 and the Northwest Rail line</li> <li>Potential to connect to the North Metro rail line east of I-25 and ADCOGC</li> <li>Connects to two other potential Arterial BRT routes at US 36 and Broomfield PnR</li> </ul>

**9. Define the *scope* and *specific elements* of the project.**

The project will pursue final design for the 120<sup>th</sup> Avenue corridor between Washington Street and approximately 150' east of the railroad tracks (east of Claude Court). Currently there is a conceptual level design completed for 120<sup>th</sup> Avenue between Washington Street and Claude Court. This design is accommodated without the need for additional right-of-way (ROW). The final design will incorporate the extension east under the railroad tracks and into Thornton. The need to purchase a small easement is expected for this stretch.

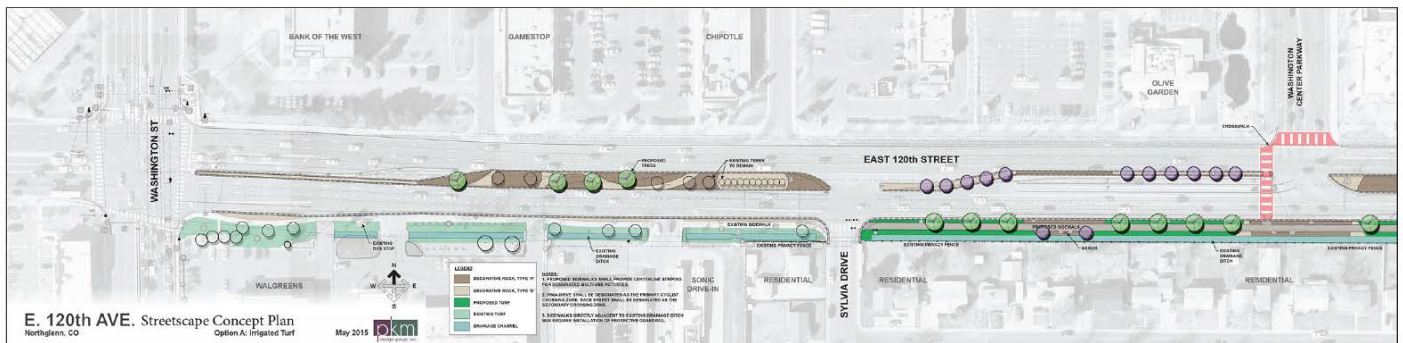
After final design is complete, the project will begin the construction phase, which will create three consistent travel lanes in each direction, reducing the high levels of congestion that exist along this stretch of 120<sup>th</sup> Avenue.

Specific project elements include:

- Final design for and construction of three east and westbound travel lanes in each direction, for the full stretch of the corridor
- NEPA planning requirements (CATEX process)
  - Noise study that is anticipated to require design and construction of a sound barrier adjacent to residential properties in the area
- Improved intersections throughout the corridor, including:
  - Providing left turn lanes for increased turning movements for the future development of properties on the north and access to the Eastlake and 124th Station, specifically at Washington Center Parkway, Irma and Race
  - Modified signals at Washington Street, Washington Center Parkway, Irma Drive, and Claude Court
  - New signal at Race Street
- Inclusion of a consistent 10' multi-use path, where feasible
- Addition of a pedestrian refuge island at Irma
- Replacement of curb, gutter, and landscaping, as needed with the project
- Removal of a sump on the west side of the railroad tracks
- Signal synchronization on 120<sup>th</sup> Avenue

- Resolving conflicts with utilities, including water lines and hydrants
- Replacement of corrugated metal storm sewer pipe with reinforced concrete pipe

Concept Sketch for Segment between Washington Street and Washington Center Parkway:



# 10. What is the status of the proposed project?

In 2015, in anticipation of the new rail transit station at Eastlake and 124th, the planned redevelopment of Karl's Farm and the potential development of other vacant properties in the area, the City of Northglenn completed a conceptual design study to determine recommended improvements to 120<sup>th</sup> Avenue between Washington Street and Claude Court. Cost estimates were prepared for this ultimate design.

The City of Thornton has also developed a cost estimate for three travel lanes in each direction to be extended approximately 150' east of the railroad tracks.

# 11. Would a smaller DRCOG-allocated funding amount than requested be acceptable, while maintaining the original intent of the project?

☐ Yes ☒ No

*If yes, define smaller meaningful limits, size, service level, phases, or scopes, along with the cost for each.*

## A. Project Financial Information and Funding Request

1. Total Project Cost	\$20,950,000	
2. Total amount of DRCOG Subregional Share Funding Request	\$16,760,000	80% of total project cost
3. Outside Funding Partners (other than DRCOG Subregional Share funds) List each funding partner and contribution amount.	\$\$ Contribution Amount	% of Contribution to Overall Total Project Cost
City of Northglenn	\$4,025,000	19%
City of Thornton	\$165,000	1%
	\$	
	\$	
	\$	
Total amount of funding provided by other funding partners (private, local, state, Regional, or federal)	\$4,190,000	

**Funding Breakdown (year by year)\***

*\*The proposed funding plan is not guaranteed if the project is selected for funding. While DRCOG will do everything it can to accommodate the applicants' request, final funding will be assigned at DRCOG's discretion within fiscal constraint. Funding amounts must be provided in year of expenditure dollars using an inflation factor of 3% per year from 2019.*

	FY 2020	FY 2021	FY 2022	FY 2023	Total
<b>Federal Funds</b>	\$800,000	\$2,300,000	\$1,500,000	\$12,160,000	<b>\$16,760,000</b>
<b>State Funds</b>	\$	\$	\$	\$	<b>\$0</b>
<b>Local Funds</b>	\$200,000	\$575,000	\$375,000	\$3,040,000	<b>\$4,190,000</b>
<b>Total Funding</b>	\$1,000,000	\$2,875,000	\$1,875,000	\$15,200,000	<b>\$20,950,000</b>
<b>4. Phase to be Initiated</b> <i>Choose from Design, ENV, ROW, CON, Study, Service, Equip. Purchase, Other</i>	Design	ENV	ROW	CON	

**5. By checking this box**, the applicant's Chief Elected Official (Mayor or County Commission Chair) or City/County Manager for local governments or Agency Director or equivalent for others, has certified it allows this project request to be submitted for DRCOG-allocated funding and will follow all DRCOG policies and state and federal regulations when completing this project, if funded.





## Part 2 Evaluation Criteria, Questions, and Scoring

### A. Subregional significance of proposed project

WEIGHT **40%**

Provide **qualitative and quantitative** (derived from Part 3 of the application) responses to the following questions on the subregional significance of the proposed project.

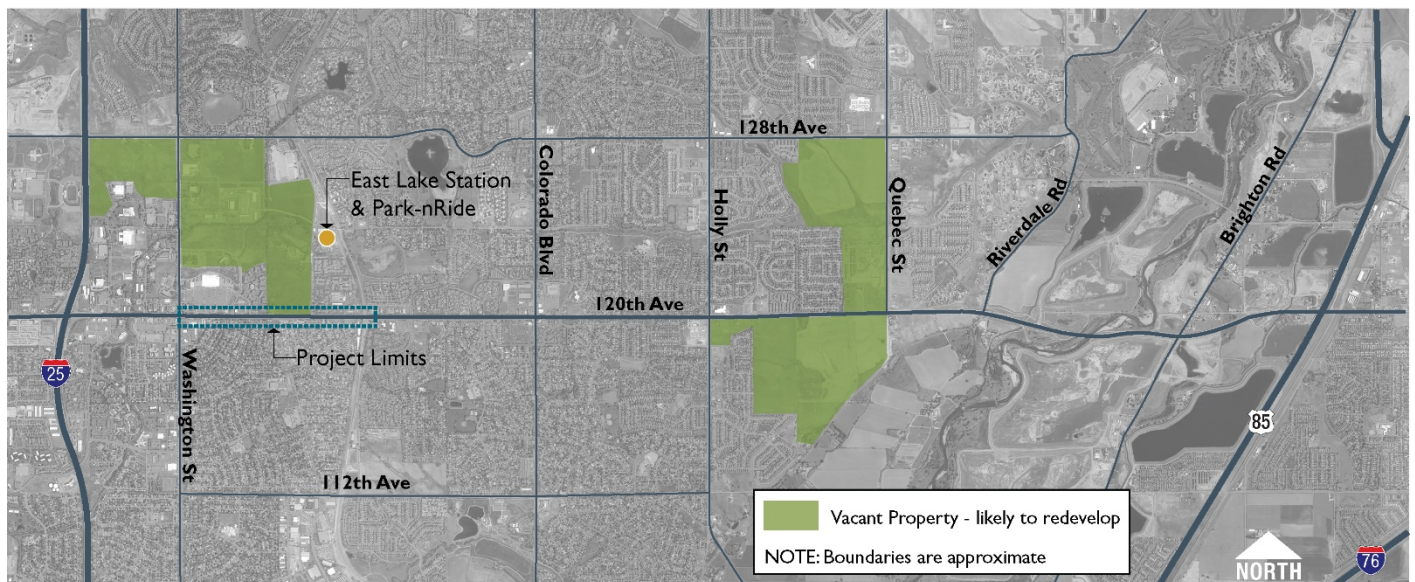
**1. Why is this project important to your subregion?**

This part of 120<sup>th</sup> Avenue is currently a major pinch point for congestion in the area. Future growth will exacerbate this situation with the probability of all four intersections in this stretch failing by 2034 with the future traffic in the area. This takes into account pending development within one mile of the project, including a 220 acres of undeveloped property on the north side of 120<sup>th</sup> Avenue, part of which is the Eastlake DRCOG identified Emerging Urban Center. Residential growth between 2020 and 2040 is anticipated to increase the area's population by nearly 20 percent, from 28,725 to over 35,000. Likewise, employment is expected to grow in the area by 13 percent and traffic volumes by 23 percent by 2040. This is likely influenced in part by the desirability of proximity to the North Metro Line and the Eastlake and 124th Station. 120<sup>th</sup> Avenue is also a feeder route to I-25 with a direct interchange a little over one-half mile from the project boundary.

Even with the required upgrades that developers will be obligated to make along the corridor, intersection LOS is still expected to fail due to high levels of regional growth in Northglenn, Thornton, and Brighton (see the map below identifying vacant properties along the 120<sup>th</sup> Avenue corridor). Additionally, RTD's North Metro Line and the Eastlake and 124th Station will bring additional traffic on 120<sup>th</sup> Avenue from individuals traveling to park and ride at the station.

Project improvements are essential to ensure that the communities of Northglenn and Thornton remain competitive with other metro area suburban communities in terms of attracting residents and quality retail and industry.

#### Vacant Property along 120<sup>th</sup> Avenue Map



**2. Does the proposed project cross and/or benefit multiple **municipalities**? If yes, which ones and how?**

The project will benefit the cities of Thornton and Northglenn most significantly; however, the reduced congestion will also benefit access into and out of Westminster (west) and Brighton (east) on 120<sup>th</sup> Avenue and the interchange of 120<sup>th</sup> Avenue and I-25. Furthermore, the corridor connects Brighton, Thornton, Northglenn,

and Westminster residents to the Emerging Urban Center of Eastlake and the existing Urban Center of West 120<sup>th</sup> Avenue, just west of Interstate 25 (I-25).

**3. Does the proposed project cross and/or benefit another subregion(s)? If yes, which ones and how?**

The proposed project is fully within Adams County and will have the greatest benefit for Adams County residents.

**4. How will the proposed project address the specific transportation problem described in the **Problem Statement** (as submitted in Part 1, #8)?**

The proposed project will make significant improvements to the level of congestion along 120<sup>th</sup> Avenue. All intersections in this stretch will operate at failing LOS during peak hours by 2034. With the planned project improvements, all intersections are expected to operate at LOS C or better during peak hours through 2040.

Delay estimates have been prepared according to methodology recommended in this application:

- AM EB: 241.0 s (No Action) – 214.4 s (Buildout) = 26.6 second savings
- AM WB: 853.9 s (No Action) – 267.0 s (Buildout) = 586.9 second savings
- PM EB: 586.5 s (No Action) – 214.9 s (Buildout) = 371.6 second savings
- PM WB: 303.0 s (No Action) – 299.4 s (Buildout) = 3.6 second savings
- Total daily delay (No Action) – 1,953 s – **32.5 minutes**
- Total daily delay (Buildout) – 995.53 s – **16.5 minutes**
- **Reduced delay – 51%**

The current daily peak hour delay in both directions with No Action is 32.5 minutes. Post-project implementation, daily peak hour delay in both directions will be reduced by half to 16.5 minutes. The improved operation of these intersections will have great benefits to motorists and potential transit users along this corridor.

These failing intersections have a major impact on traffic delay in the subregion and GHG emissions, which will continue to increase without attention. The proposed project will help facilitate the potential for high frequency transit to be implemented along 120<sup>th</sup> Avenue, which has the potential to reduce GHG emissions by 19,844 pounds daily.

Applying CRF factors, the project is projected to reduce serious injury crashes by 25%.

**5. One foundation of a sustainable and resilient economy is physical infrastructure and transportation. How will the **completed** project allow people and businesses to thrive and prosper?**

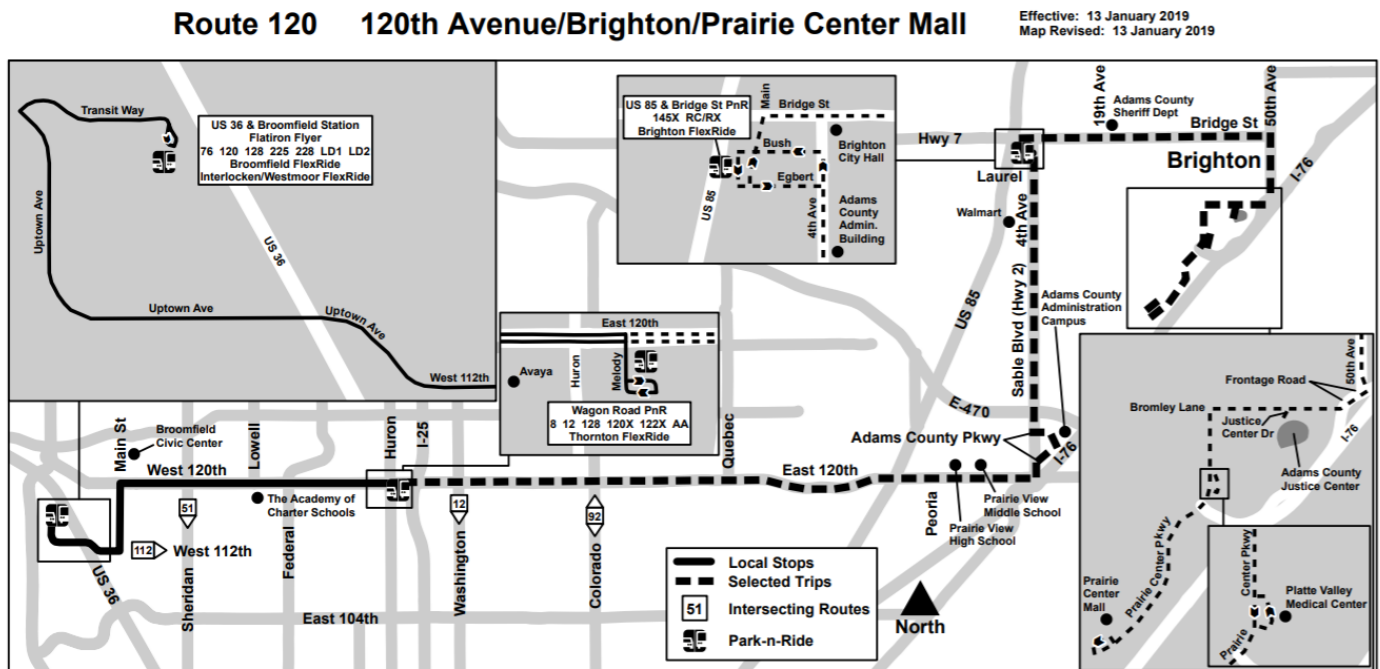
The completed project will complement and capitalize on other investments in the region, such as work along the US 85 corridor and investment in FasTracks. The US 85 corridor is only 4.5 miles east of this stretch of 120<sup>th</sup> Avenue and is a major travel shed between the metro area and northeast Colorado; businesses along 120<sup>th</sup> have the potential to benefit from US 85 travelers if the 120<sup>th</sup> Avenue corridor can accommodate traffic adequately. Reducing travel delays along 120<sup>th</sup> will encourage people coming from the US 85 area to shop along 120<sup>th</sup> at Thorncreek Crossing (Target, Sprouts, Michaels, etc.) and Washington Point (Safeway). Jobs within 1 mile of this corridor will increase by 13 percent between 2020 and 2040, jumping from 12,579 to 14,463. Commuters into the area will benefit from reduced delay on 120<sup>th</sup> Avenue.

Furthermore, the project will upgrade existing drainage pipes along 120<sup>th</sup> Avenue that have reached the end of their expected life. This improvement will benefit area businesses and residents that could be plagued by drainage problems in the event of future flooding without the replacement of this pipe.

**6. How will connectivity to different travel modes be improved by the proposed project?**

The Eastlake and 124<sup>th</sup> Station on the future North Metro Line will have 560 parking spaces (RTD and City lots), and the primary access to the station is using 120<sup>th</sup> Avenue through this highly congested stretch. Without these necessary improvements, hopeful transit riders trying to access the station are likely to encounter challenges getting to and from the station, which may impact their choice to use the North Metro Line.

The existing transit service on 120<sup>th</sup> Avenue, the 120 Route (see route map below), will also benefit by not being stuck in congestion on 120<sup>th</sup> Avenue.



The project will also improve the pedestrian comfort and safety along 120<sup>th</sup> Avenue by providing pedestrian refuges at key intersections and widening sidewalks to a 10' multi-use path to accommodate both cyclist and pedestrian use. The concept plan unifies landscape treatments along the corridor. Canopy trees bordering the street particularly along the residential sections help to reduce traffic noise, make the trail more comfortable with increased shade and provide a psychological buffer between the vehicular and pedestrian and bicycle traffic. These enhancements, along with improved safety on the roadway, will encourage increased usage by both bicyclists and pedestrians.

The planned project improvements will ensure that motorists, transit users, bicyclists, and pedestrians can safely and comfortably access businesses on 120<sup>th</sup> Avenue and the greater region by improving accessibility in the 120<sup>th</sup> Avenue area and improving connectivity to the regional transit network.

7. Describe funding and/or project partnerships (*other subregions, regional agencies, municipalities, private, etc.*) established in association with this project.

While the City of Northglenn will be the project sponsor, the City of Thornton supports the project and will contribute financially (see Part 1-A). Private development funds are expected to account for a portion of the City of Northglenn's local match based on developer obligation toward improved infrastructure that is needed to accommodate the redevelopment of the Karl's Farm Dairy property along the north side of 120<sup>th</sup> Avenue.

## B. DRCOG Board-approved Metro Vision TIP Focus Areas

WEIGHT **30%**

Provide **qualitative and quantitative** (derived from Part 3 of the application) responses to the following questions on how the proposed project addresses the three DRCOG Board-approved Focus Areas (in bold).

1. Describe how the project will **improve mobility infrastructure and services for vulnerable populations (including improved transportation access to health services)**.

The MVRTP identifies geographic concentrations of environmental justice communities in the area south of 120<sup>th</sup> Avenue. Specifically, the whole south stretch of the project area has greater than 33 percent minority populations, and the southeast half of the area also has greater than 11 percent low-income populations.

Minority populations are twice as likely to use transit as a means of transportation to work than non-minority populations, according to the *MVRTP*. Not surprisingly, transit use also increases as income levels decrease. These two measures indicate that access to alternative modes is important in this corridor, and the improved operations that transit service will see resulting from reduced levels of congestion will be beneficial to these populations.

The 1-mile area around the project area also has a large number of youth and senior populations, 18 percent and 10 percent, respectively.

SCL Health Emergency Department is the only general healthcare facility within 1 mile of the project boundary. It is located southwest of the project, just one street west of Washington Street at Grant Street and 120<sup>th</sup> Avenue. While this facility offers a range of services to accommodate emergency, pediatric, and family medicine, area residents are likely to require other healthcare services at times. This limited selection of nearby healthcare providers makes having good transportation options to access other nearby and regional services very important to local residents. The transit network (existing 120 Route and future Regional Rail network) and vehicular travel along 120<sup>th</sup> Avenue are necessary for residents living in this area to access health services adjacent to the corridor and other regional facilities. The increased capacity that this project will yield will benefit vulnerable and non-vulnerable residents alike.

**2. Describe how the project will increase reliability of existing multimodal transportation network.**

The improved capacity of 120<sup>th</sup> Avenue will greatly increase reliability of the 120 Route because it will help to keep the bus moving rather than being stuck at intersections waiting for congestion to ease. Additionally, in the future, the improvements will reduce delay for motorists driving to the park-n-ride at Eastlake and 124th Station and enable them to catch their train in a timely manner.

As stated previously, current daily peak hour delay in both directions with No Action is 32.5 minutes. Post-project implementation, daily peak hour delay in both directions will be reduced by half to 16.5 minutes. The improved operation of these intersections will benefit motorists and transit buses along this corridor.

**3. Describe how the project will improve transportation safety and security.**

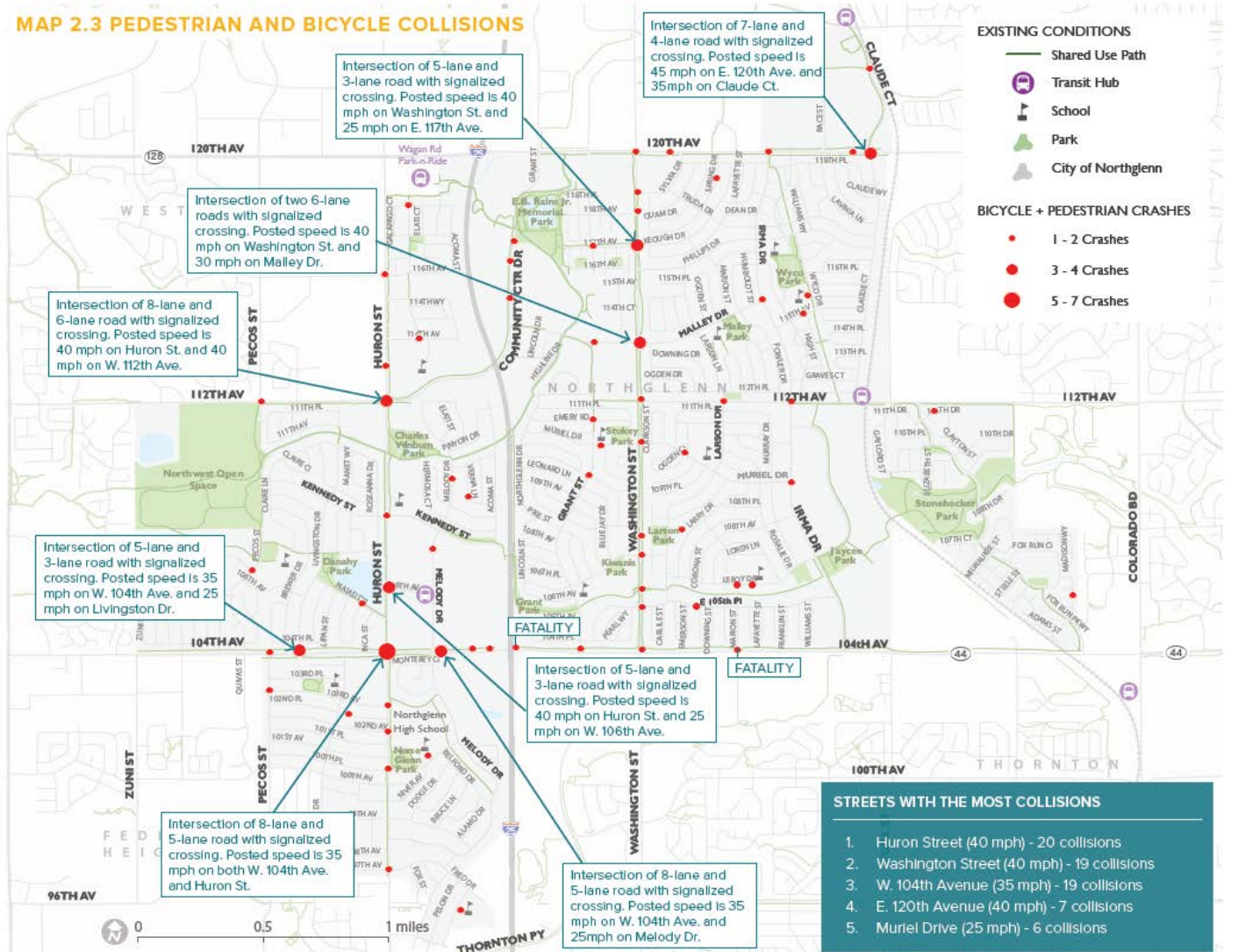
The cities of Northglenn and Thornton are pursuing these improvements because they seek to ensure that 120<sup>th</sup> Avenue is a safe and efficient roadway facility that provides appropriate access to adjacent properties, presents a pleasing pedestrian and driver experience, and maintains an overall roadway character consistent with previous planning efforts.

The corridor is one of the top accident areas in the city of Northglenn; between 2011 and 2015 nearly 140 accidents occurred on this part of 120<sup>th</sup> Avenue. Two intersections in this stretch (Washington Street and Claude Court) were on the top ten most frequent accident locations in 2018 according to sources from the Northglenn Police Department. Additionally, the *Connect Northglenn Bicycle and Pedestrian Master Plan* noted that seven bicycle and pedestrian and vehicular incidents occurred between 2012 and 2016. This plan also notes that 120<sup>th</sup> Avenue observed the fourth most bicycle and pedestrian related accidents of all Northglenn streets, following Washington Street, Huron and 104<sup>th</sup> Avenue. This is noteworthy because 120<sup>th</sup> Avenue is less than half the length of these other corridors through the City. Refer to the map below.

Applying CRF factors, the project is projected to reduce serious injury crashes by 25%.



MAP 2.3 PEDESTRIAN AND BICYCLE COLLISIONS



## C. Consistency & Contributions to Transportation-focused Metro Vision Objectives

WEIGHT **20%**

Provide **qualitative and quantitative** responses (derived from Part 3 of the application) to the following items on how the proposed project contributes to Transportation-focused Objectives (in bold) in the adopted Metro Vision plan. Refer to the expanded Metro Vision Objective by clicking on links.

### [MV objective 2](#)

**Contain urban development in locations designated for urban growth and services.**

1. Will this project help focus and facilitate future growth in locations where urban-level infrastructure already exists or areas where plans for infrastructure and service expansion are in place?

☒ Yes ☐ No

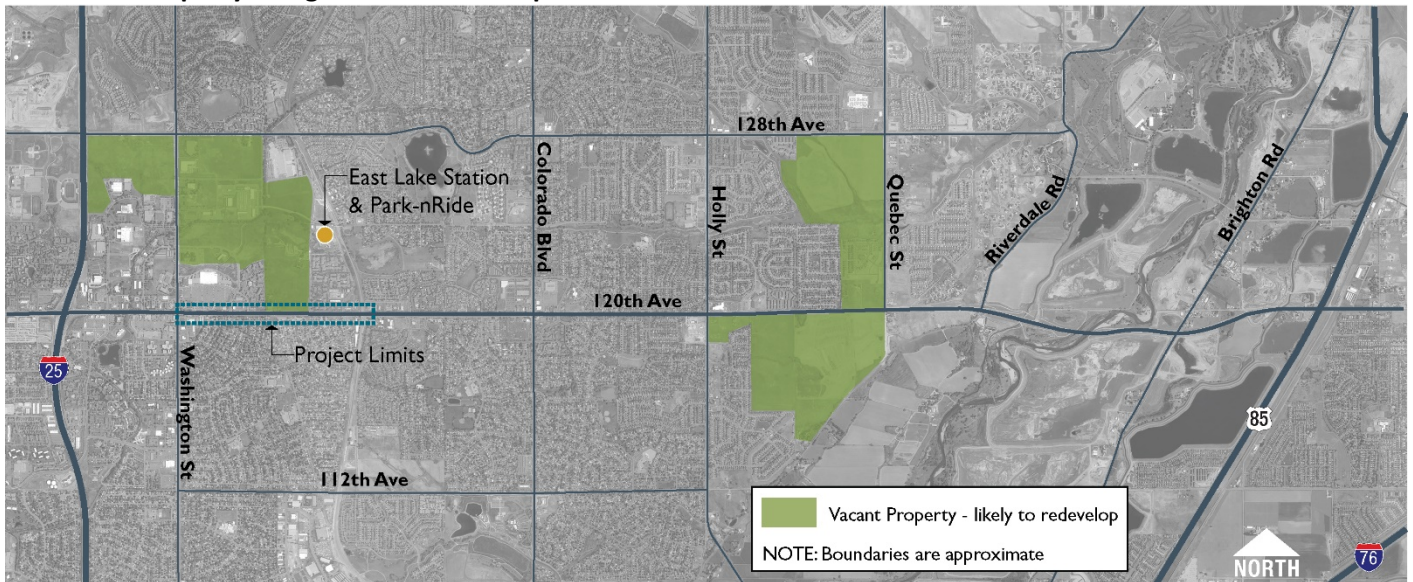
Describe, including supporting quantitative analysis

This area has urban-level development and is adjacent to the identified Emerging Urban Center of Eastlake, directly north of this project site. The infrastructure improvements to 120<sup>th</sup> Avenue directly align with the local growth aspirations of the cities of Northglenn and Thornton, as well as the neighboring communities of Brighton and Westminster, all of which anticipate growth occurring along 120<sup>th</sup> Avenue. Development projects will be



expected to pay their own way, and the major redevelopment at Karl's Farm adjacent to this corridor is expected to contribute toward the local match for this project.

#### Vacant Property along 120<sup>th</sup> Avenue Map



#### [MV objective 3](#)

#### Increase housing and employment in urban centers.

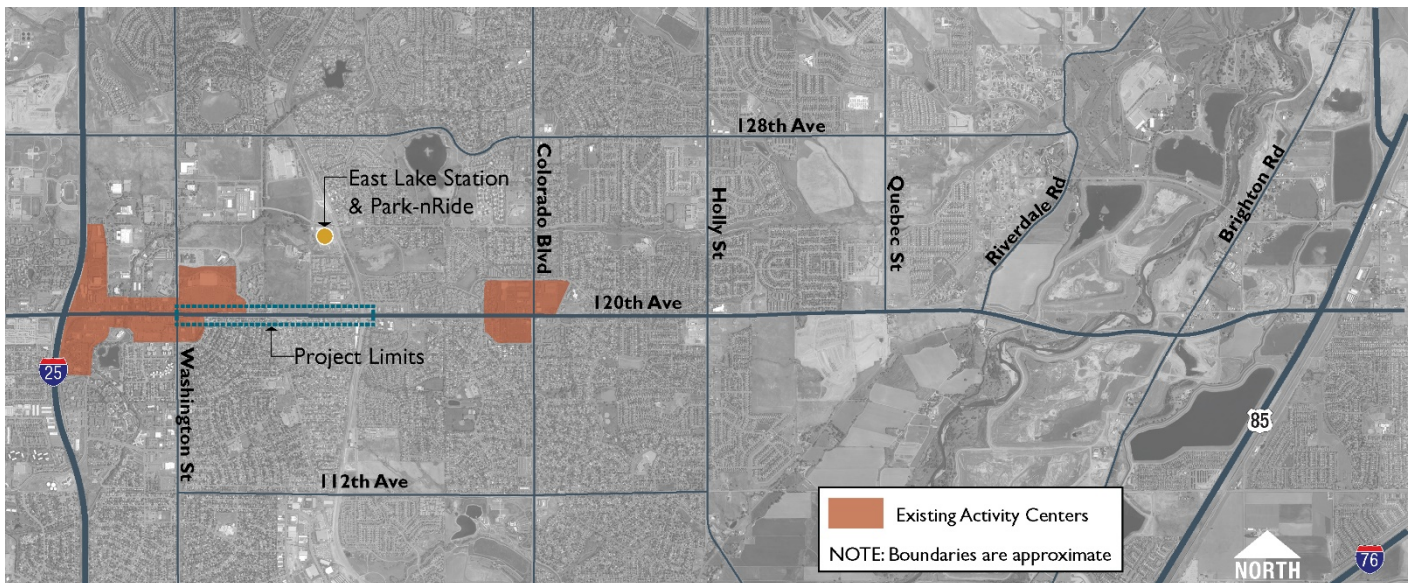
2. Will this project help establish a network of clear and direct multimodal connections within and between urban centers, or other key destinations?

☒ Yes ☐ No

Describe, *including supporting quantitative analysis*

120<sup>th</sup> Avenue is the primary connection to the Eastlake Emerging Urban Center, and the 10' multi-use paths along 120<sup>th</sup> act as clear and direct multimodal connections between the Eastlake and West 120<sup>th</sup> Avenue Urban Centers and other major area destinations, including the park-n-ride at 124<sup>th</sup>.

#### Activity Centers along 120<sup>th</sup> Avenue Map



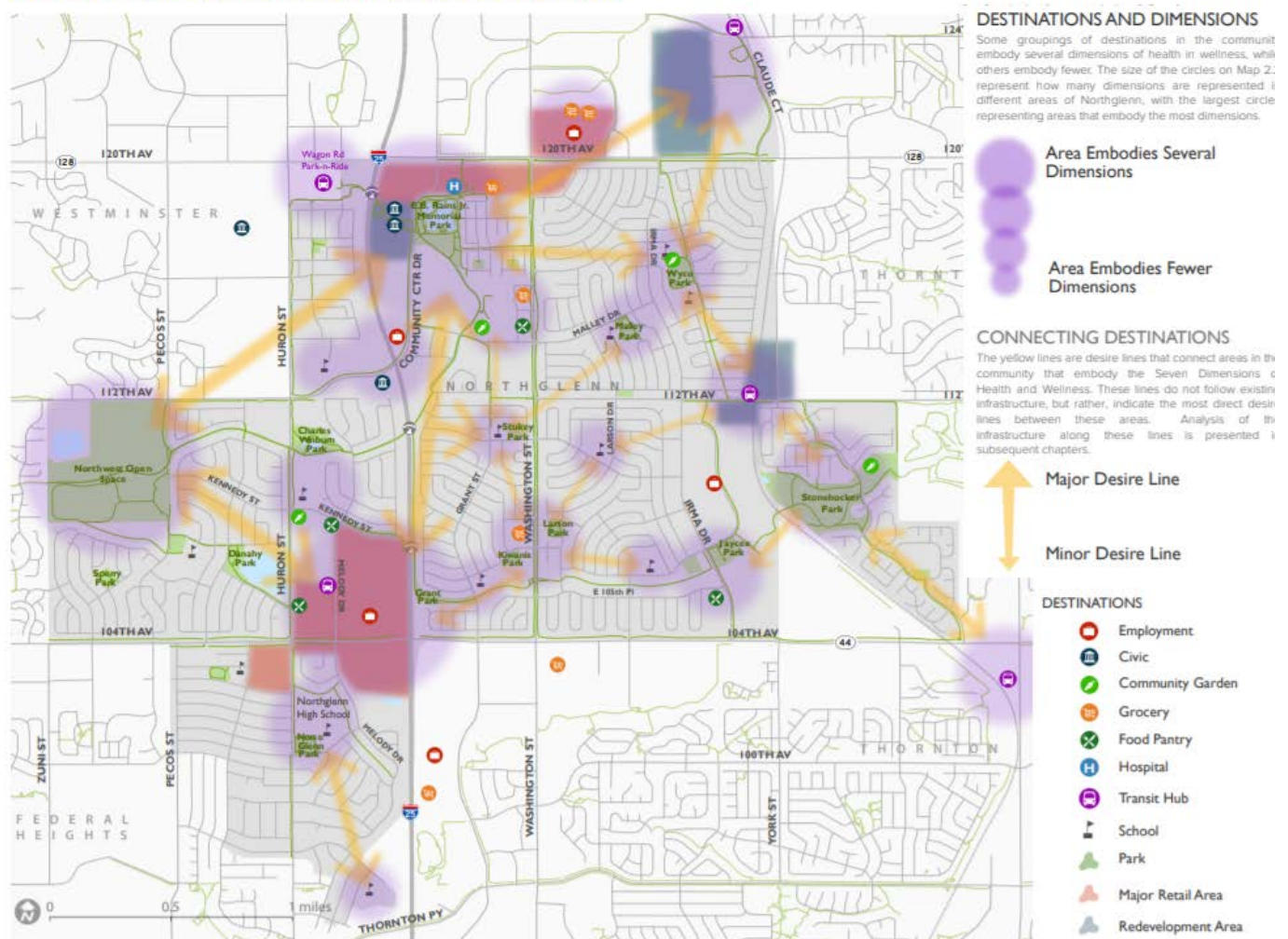
<a href="#">MV objective 4</a>	<b>Improve or expand the region's multimodal transportation system, services, and connections.</b>	
<p>3. Will this project help increase mobility choices within and beyond your subregion for people, goods, or services?</p> <p>Describe, <i>including supporting quantitative analysis</i></p> <p>This project helps to facilitate efficient bus service along 120<sup>th</sup> Avenue by reducing the significant travel delay that occurs during the peak periods along this stretch. As stated previously, current daily peak hour delay in both directions with No Action is 32.5 minutes. Post-project implementation, daily peak hour delay in both directions will be reduced by half to 16.5 minutes. The improved operation of these intersections will benefit transit users along this corridor.</p>		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<a href="#">MV objective 6a</a>	<b>Improve air quality and reduce greenhouse gas emissions.</b>	
<p>4. Will this project help reduce ground-level ozone, greenhouse gas emissions, carbon monoxide, particulate matter, or other air pollutants?</p> <p>Describe, <i>including supporting quantitative analysis</i></p> <p>This project has the potential to greatly reduce GHG emissions in the amount of 19,844 pounds daily by 2040. This is based on the improved potential to operate high frequency transit on the corridor, which will increase transit ridership, reducing SOV one-way trips and overall vehicle miles traveled in the region.</p>		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<a href="#">MV objective 7b</a>	<b>Connect people to natural resource or recreational areas.</b>	
<p>5. Will this project help complete missing links in the regional trail and greenways network or improve other multimodal connections that increase accessibility to our region's open space assets?</p> <p>Describe, <i>including supporting quantitative analysis</i></p> <p>While the project does not complete missing links as there are currently sidewalks (varying width and separation from roadway) in the corridor, the preliminary design does include 10' multi-use paths where feasible on both the north and south sides of the roadway to provide continuous connections for pedestrians and cyclists. A major crossing for bicycle and pedestrian movements, including widened median with pedestrian refuge, is incorporated into the intersection at Irma Drive. There are existing trail connections along the 120<sup>th</sup> Avenue corridor running north/south that provide access to local parks (Wyco Park, E.B. Rains Jr. Memorial Park and Northwest Open Space in Northglenn and Eastlake Reservoirs 1 and 2 and Eastlake 3 Park and Nature Preserve in Thornton). There is a robust east/west trail network connecting Westminster, Northglenn and Thornton.</p>		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<a href="#">MV objective 10</a>	<b>Increase access to amenities that support healthy, active choices.</b>	
<p>6. Will this project expand opportunities for residents to lead healthy and active lifestyles?</p> <p>Describe, <i>including supporting quantitative analysis</i></p> <p>Northglenn is a LiveWell Colorado Elite status HEAL (Healthy Eating Active Living) City and meeting the goals of improved access to healthy lifestyles is an important adopted goal of City Council.</p> <p>As described in Question 5, the preliminary design includes 10' multi-use paths where feasible on both the north and south sides of the roadway to provide continuous connections for pedestrians and cyclists. A major crossing for bicycle and pedestrian movements, including widened median with pedestrian refuge, is incorporated into the intersection at Irma Drive. The concept plan unifies landscape treatments along the corridor. Canopy trees</p>		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No



bordering the street particularly along the residential sections help to reduce traffic noise, make the trail more comfortable with increased shade and provide a psychological buffer between the vehicular and pedestrian and bicycle traffic. These enhancements, along with improved safety on the roadway, will encourage increased usage by both bicyclists and pedestrians. The existing trail network and enhanced multi-use paths along the corridor combined provide access to parks, open space, retail and entertainment, and transit connections both by the 120 bus route and North Metro rail line and station at Eastlake and 124<sup>th</sup>. There are also two full-service grocery stores within the project boundary, with another directly served by Washington Street intersection.

The City of Northglenn's *Connect Northglenn Bicycle and Pedestrian Master Plan* included a mapping exercise that identified priority destinations based on the Seven Dimensions of Community Health, which includes physical, social, economic, environmental, spiritual, emotional and intellectual health. As you can see in the graphic below, the project area embodies more dimensions and was identified as an important area to improve connectivity to and within.

**MAP 2.2 CONNECTING DIMENSIONS AND DESTINATIONS**



**MV objective 13**

**Improve access to opportunity.**

7. Will this project help reduce critical health, education, income, and opportunity disparities by promoting reliable transportation connections to key destinations and other amenities?

☒ Yes ☐ No

Describe, including supporting quantitative analysis

As stated previously, *Metro Vision Regional Transportation Plan (MVRTP)* identifies geographic concentrations of environmental justice communities in the area south of 120<sup>th</sup> Avenue. Specifically, the whole south stretch of the



project area has greater than 33 percent minority populations, and the southeast half of the area also has greater than 11 percent low-income populations. Minority populations are twice as likely to use transit as a means of transportation to work than non-minority populations, *MVRTP*. Not surprisingly, transit use also increases as income levels decrease. Ensuring that reliable transportation options, both vehicular travel and alternative mode travel, are available is particularly important in areas where housing is more affordable and concentrations of low-income and minority populations are present.

[MV objective 14](#)

**Improve the region's competitive position.**

8. Will this project help support and contribute to the growth of the subregion's economic health and vitality?

☒ Yes ☐ No

Describe, *including supporting quantitative analysis*

It is important to have adequate transportation infrastructure to attract and maintain local economic health and vitality. This area is likely to grow significantly between 2020 and 2040 (population by 19 percent and employment by 13 percent).

**D. Project Leveraging**

**WEIGHT 10%**

9. What percent of outside funding sources (non-DRCOG-allocated Subregional Share funding) does this project have?

20%

60%+ outside funding sources ..... High  
30-59% ..... Medium  
29% and below ..... Low

**Part 3 Additional Considerations**

The ADCOG Subregional Forum has established five additional considerations to guide project selection within the subregional process. These considerations may be used by the ADCOG Subregional Forum in the project evaluation process in combination with the above listed criteria. The five additional considerations are:

- Does the project benefit a small community, which for this process is defined as a community with a population of less than 50,000 people?

Yes, Northglenn, a small community with a population of less than 40,000 people, would benefit from improvements to 120<sup>th</sup> Avenue as it is one of the major accesses into the community.

- Is this project a suburban connector?

Yes, 120<sup>th</sup> Avenue connects Northglenn and Thornton to I-25, a major connector moving people and goods through both communities.

- Does the project address a gap in existing service?

As mentioned previously in the application, this project will address a gap in the street network along 120<sup>th</sup> Avenue where six travel lanes are reduced to four (three in each direction reduced to two in each direction). This reduction in travel lanes has significant impacts on congestion and travel delay through the corridor.

- Is this the logical next step of a project?

Yes, the 120<sup>th</sup> Corridor Study was completed in 2015, and Karl's Farm development has been moving forward. Final design and construction are the next logical steps for this project.

- Is the project construction ready?

The project includes final design and construction.

Applicants should provide an attachment to the application to address these additional considerations.

<b>Part 4</b>	<b>Project Data Worksheet – Calculations and Estimates</b> (Complete all subsections applicable to the project)
---------------	--

### A. Transit Use

1. Current ridership weekday boardings	3,094
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	28,725	12,579	<b>41,304</b>
2040	35,598	14,463	<b>50,061</b>

Transit Use Calculations	Year of Opening	2040 Weekday Estimate
3. Enter estimated additional daily transit boardings after project is completed. (Using 50% growth above year of opening for 2040 value, unless justified) <i>Provide supporting documentation as part of application submittal</i>	3,094	4,641
4. Enter number of the additional transit boardings (from #3 above) that were previously using a different transit route. (Example: <b>{#3 X 25%}</b> or other percent, if justified)	0	1,160
5. Enter number of the new transit boardings (from #3 above) that were previously using other non-SOV modes (walk, bicycle, HOV, etc.) (Example: <b>{#3 X 25%}</b> or other percent, if justified)	0	1,160
6. = Number of SOV one-way trips reduced per day (#3 – #4 – #5)	<b>0</b>	<b>2,321</b>
7. Enter the value of <b>{#6 x 9 miles}</b> . (= the VMT reduced per day) (Values other than the default 9 miles must be justified by sponsor; e.g., 15 miles for regional service or 6 miles for local service)	0	20,889
8. = Number of pounds GHG emissions reduced (#7 x 0.95 lbs.)	<b>0</b>	<b>19,844</b>
9. If values would be distinctly greater for weekends, describe the magnitude of difference:		
10. If different values other than the suggested are used, please explain here:		

### B. Bicycle Use

1. Current weekday bicyclists	
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	0	0	0
2040	0	0	0

Bicycle Use Calculations	Year of Opening	2040 Weekday Estimate
3. Enter estimated additional weekday one-way bicycle trips on the facility after project is completed.	0	0
4. Enter number of the bicycle trips (in #3 above) that will be diverting from a different bicycling route. (Example: <b>{#3 X 50%}</b> or other percent, if justified)	0	0
5. = Initial number of new bicycle trips from project (#3 – #4)	0	0
6. Enter number of the new trips produced (from #5 above) that are replacing an SOV trip. (Example: <b>{#5 X 30%}</b> (or other percent, if justified)	0	0
7. = Number of SOV trips reduced per day (#5 - #6)	0	0
8. Enter the value of <b>{#7 x 2 miles}</b> . (= the VMT reduced per day) (Values other than 2 miles must be justified by sponsor)	0	0
9. = Number of pounds GHG emissions reduced (#8 x 0.95 lbs.)	0	0
10. If values would be distinctly greater for weekends, describe the magnitude of difference:		
11. If different values other than the suggested are used, please explain here:		

## C. Pedestrian Use

1. Current Peak Hour weekday pedestrians (include users of all non-pedaled devices)	13
2. Population and Employment	

Year	Population within 1 mile	Employment within 1 mile	Total Pop and Employ within 1 mile
2020	0	0	0
2040	0	0	0

Pedestrian Use Calculations	Year of Opening	2040 Weekday Estimate
3. Enter estimated additional weekday pedestrian one-way trips on the facility after project is completed	0	0
4. Enter number of the new pedestrian trips (in #3 above) that will be diverting from a different walking route (Example: <b>{#3 X 50%}</b> or other percent, if justified)	0	0
5. = Number of new trips from project (#3 – #4)	0	0

6. Enter number of the new trips produced (from #5 above) that are replacing an SOV trip. (Example: <b>{#5 X 30%}</b> or other percent, if justified)	0	0
7. = Number of SOV trips reduced per day (#5 - #6)	0	0
12. Enter the value of <b>{#7 x .4 miles}</b> . (= the VMT reduced per day) (Values other than .4 miles must be justified by sponsor)	0	0
8. = Number of pounds GHG emissions reduced (#8 x 0.95 lbs.)	0	0
9. If values would be distinctly greater for weekends, describe the magnitude of difference:		
10. If different values other than the suggested are used, please explain here:		

#### D. Vulnerable Populations

Use Current Census Data	Vulnerable Populations	Population within 1 mile
	1. Persons over age 65	2,977
	2. Minority persons	3,514
	3. Low-Income households	994
	4. Linguistically-challenged persons	644
	5. Individuals with disabilities	1,792
	6. Households without a motor vehicle	763
	7. Children ages 6-17	5,057
	8. Health service facilities served by project	11

#### E. Travel Delay *(Operational and Congestion Reduction)*

Sponsor must use industry standard Highway Capacity Manual (HCM) based software programs and procedures as a basis to calculate estimated weekday travel delay benefits. *DRCOG staff may be able to use the Regional Travel Model to develop estimates for certain types of large-scale projects.*

1. Current ADT (average daily traffic volume) on applicable segments	46,968
2. 2040 ADT estimate	60,700
3. Current weekday vehicle hours of delay (VHD) (before project) (includes AM +PM delay)	382

Travel Delay Calculations	Year of Opening
4. Enter calculated future weekday VHD (after project)	276
5. Enter value of <b>{#3 - #4}</b> = Reduced VHD	106
6. Enter value of <b>{#5 X 1.4}</b> = <b>Reduced person hours of delay</b> (Value higher than 1.4 due to high transit ridership must be justified by sponsor)	148

<b>7. After project peak hour congested average travel time reduction</b> per vehicle (includes persons, transit passengers, freight, and service equipment carried by vehicles). <i>If applicable, denote unique travel time reduction for certain types of vehicles</i> <ul style="list-style-type: none"> <li>AM EB: 241.0 s (No Action) – 214.4 s (Buildout) = 26.6 s</li> <li>AM WB: 853.9 s (No Action) – 267.0 s (Buildout) = 586.9 s</li> <li>PM EB: 586.5 (No Action) – 214.9 s (Buildout) = 371.6 s</li> <li>PM WB: 303.0 s (No Action) – 299.4 s (Buildout) = 3.6 s</li> </ul>	988
<b>8.</b> If values would be distinctly different for weekend days or special events, describe the magnitude of difference.	
<b>9.</b> If different values other than the suggested are used, please explain here:	

## F. Traffic Crash Reduction

<b>1.</b> Provide the current number of crashes involving motor vehicles, bicyclists, and pedestrians ( <i>most recent 5-year period of data</i> )		Sponsor must use industry accepted crash reduction factors (CRF) or accident modification factor (AMF) practices ( <i>e.g., NCHRP Project 17-25, NCHRP Report 617, or DiExSys methodology</i> ).
Fatal crashes	0	
Serious Injury crashes	7	
Other Injury crashes	0	
Property Damage Only crashes	138	
<b>2.</b> Estimated reduction in crashes <u>applicable to the project scope</u> ( <i>per the five-year period used above</i> )		
Fatal crashes reduced	0	
Serious Injury crashes reduced	2	
Other Injury crashes reduced	0	
Property Damage Only crashes reduced	0	

## G. Facility Condition

Sponsor must use a current industry-accepted pavement condition method or system and calculate the average condition across all sections of pavement being replaced or modified.  
 Applicants will rate as: Excellent, Good, Fair, or Poor

### Roadway Pavement

1. Current roadway pavement condition	Choose an item
2. Describe current pavement issues and how the project will address them.	
3. Average Daily User Volume	0

### Bicycle/Pedestrian/Other Facility

4. Current bicycle/pedestrian/other facility condition	Choose an item
5. Describe current condition issues and how the project will address them.	

6. Average Daily User Volume	0
<b>H. Bridge Improvements</b>	
1. Current bridge structural condition from CDOT	
2. Describe current condition issues and how the project will address them.	
3. Other functional obsolescence issues to be addressed by project	
4. Average Daily User Volume over bridge	0
<b>I. Other Beneficial Variables</b> <i>(identified and calculated by the sponsor)</i>	
1.	
2.	
3.	
<b>J. Disbenefits or Negative Impacts</b> <i>(identified and calculated by the sponsor)</i>	
1. Increase in VMT? <i>If yes, describe scale of expected increase</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Negative impact on vulnerable populations	
3. Other:	

# RTD Concurrence

**From:** "Quinn, Chris" <Chris.Quinn@RTD-Denver.com>  
**To:** Ashley Kaade <akaade@northglenn.org>  
**CC:** Charlton Kent Moorman <kent.moorman@cityofthornton.net>, Brook Svoboda <bsvoboda@northglenn.org>, "Van Meter, Bill" <Bill.VanMeter@RTD-Denver.com>, "Sirois, William" <William.Sirois@RTD-Denver.com>  
**Date:** 2/8/2019 4:47 PM  
**Subject:** RE: RTD Concurrence Requested for Northglenn Subregional TIP Application (Adams County)

Hi Ashley,

This email is to provide RTD's concurrence with the City of Northglenn's TIP application proposal. We will want to work closely with the City on the design details of the project as it relates to the segment at the L-Line crossing.

Please contact me if you would like additional information.

Thanks

Chris

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**From:** Ashley Kaade <akaade@northglenn.org>  
**Sent:** Friday, January 04, 2019 10:05 AM  
**To:** Quinn, Chris <Chris.Quinn@RTD-Denver.com>  
**Cc:** Charlton Kent Moorman <kent.moorman@cityofthornton.net>; Brook Svoboda <bsvoboda@northglenn.org>  
**Subject:** RTD Concurrence Requested for Northglenn Subregional TIP Application (Adams County)

Chris,

Please find attached the concurrence request for RTD to support the City of Northglenn (with City of Thornton support) 120th Avenue Widening project. The City plans to submit the project for Adams County Subregional TIP funding consideration.

Please let me know if you need additional information on the project.

Thank you,

**Ashley Kaade, AICP**

Senior Planner, City of Northglenn  
11701 Community Center Drive  
Northglenn, CO 80233  
Phone [303-450-8836](tel:303-450-8836)

